

ABSTRACT OF THE DISCLOSURE

A composite panel waffle stiffener has fabric plies pre-cut to a selected pattern and laid on a tool having a waffle configuration. The plies overlap each other to maintain continuity of the structure. The resulting waffle stiffener is then bonded to a panel requiring stiffening. The stiffener is flexible and may be bonded to curved panels. Holes in the stiffener allow access to the volume between the stiffener and the panel for minimizing volume loss within, for example, a wing structure containing fuel and for ventilating air or moisture trapped in the volume.